



CHARLES D. BAKER
GOVERNOR

KARYN E. POLITO
LIEUTENANT GOVERNOR

MIKE KENNEALY
SECRETARY OF HOUSING AND
ECONOMIC DEVELOPMENT

Commonwealth of Massachusetts
Division of Professional Licensure
Office of Public Safety and Inspections
1000 Washington Street • Boston • Massachusetts • 02118

EDWARD A. PALLESCHI
UNDERSECRETARY OF CONSUMER
AFFAIRS AND BUSINESS
REGULATION

DIANE M. SYMONDS
COMMISSIONER, DIVISION OF
PROFESSIONAL LICENSURE

Board of Building Regulations and Standards (BBRS)

COASTALSUBGROUP MEETING

October 17, 2019 Meeting Minutes

1:00 p.m.

1000 Washington Street Room 1E Boston MA 02118

Roll Call:

BBRS Richard Crowley, Group Chair	√ present 0 absent	PJM David Macartney	√ present 0 absent
CZM Lisa Berry Engler	√ present 0 absent	Steve Mague	0 present √ absent
CZM Rebecca Haney	√ present 0 absent	NE Development William O'Brien	0 present √ absent
DCR Joy Duperault	√ present 0 absent	AIA Andrew Kollar	√ present 0 absent
DCR Eric Carlson	√ present 0 absent	SEMBOA Mike Clancy	0 present √ absent
DEP Lealdon Langley	√ present 0 absent	NAIOP Katie T. Moniz	0 present √ absent
Construction Rep.	0 present √ absent	NAIOP Jamie M. Fay	√ present 0 absent
FEMA Coastal Engineer John Grace	√ present 0 absent	ISD Jim Kennedy	0 present √ absent
HBRA John Bologna	√ present 0 absent		

General notes on format of these minutes

- *These minutes represent general points discussed during the meeting. The minutes are not intended to be a verbatim account of discussions.*
- *Agenda topics as numbered may not be in the same order as they appear on the meeting agenda.*
- *The meeting agenda is listed as **EXHIBIT A**; others are listed sequentially as addresses during the meeting.*

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1. **Roll call.** Chairman Crowley opened the meeting about 1:08 pm with roll call.
 2. **Meeting Minutes Review\Vote** to approve Coastal Subgroup draft minutes from June 25, July 24, and September 17. On a MOTION by Jamie Fay, 2nd by John Bologna, it was unanimous to approve the June 25, 2019 meeting minutes. Rebecca Haney offered an edit in the 2nd topic flood plain changed to Coastal A. Eric Carlson offered a change in the 3rd topic. Change A Zone for "B Zone" and A Zone for "B Zone." Approved as amended. Jamie Fay motioned and Dave Macartney 2nd to approve the July 24, 2019 meeting minutes. Lisa Engler offered some typos, which were mostly under topic 3. The chairman decided to table discussing the September 17, 2019 draft meeting minutes pending edits to be submitted to staff.
 3. **Discuss** presentations by experts, discuss effects of the ASCE 24 standards, and talk about steel and concrete framed buildings subject to flooding conditions. Guest speakers included Brian Caufield, PE, CFM, D.CE, Principal, Senior Coastal Engineer, and a coastal engineer based in Boston, MA, with more than 20 years of experience specializing in the areas of hydrodynamic modeling, flushing studies, wave transformation, coastal structure design, and sediment



transport. Christopher P. Jones, PE, Senior Coastal Engineer based in Durham, NC with more than 40 years of experience as a practicing engineer specializing in coastal engineering, flood hazard mapping, and flood-resistant design. Also, Manny A. Perotin, PE, PMP, CFM, Principal, Senior Project Manager based in Tampa, FL, with 20 years of experience in civil engineering, risk and vulnerability assessments, hazard mitigation, benefit-cost analysis, floodplain management, planning, disaster recovery, and project management. Jonathan Esslinger participated via landline. Brian Caufield gave a presentation. Christopher Jones spoke about the Coastal A Zone definition and how it factors wave heights. He showed wave a height cross-section and spoke about FEMA has performed post-event assessments and that these reports provide information about wave height damage and debris damage. Christopher Jones showed several photos of structures damaged from flooding and suggested wave action is a contributing factor. Jamie Fay asked when the Coastal A Zone standard came into effect. Christopher Jones said during the 1990s. Dave Macartney asked how often FEMA revises their maps. Christopher Jones said revisions often occurs after an event. Christopher Jones walked through a "Code Master" periodical published by ICC and said most provisions in the building code mirror the NFIP Standards, and the ASCE 24 standards apply to new construction. Existing structures evacuated to determine if propose work meets the substantially damaged or substantially improved criteria. Christopher Jones next talked about different foundation systems describing the differences. Jamie Fay asked if breakaway walls in a Coastal A Zone satisfies the standards (believe he was referring to ASCE 24). Christopher Jones indicated yes if flood vents included. Dave Macartney asked about situations involving small parts of the structure located in an A Zone requiring upgrading and elevating the entire structure and prohibiting parking on the lowest floor level. He spoke about projects in the planning stage for a long period of time are at a disadvantage when map updates occur. Christopher Jones spoke about flood insurance premiums go down when flood resistance construction is utilized. Manny Perotin spoke about structures subject to floodproof construction had experienced damaged during Hurricane Sandy. Dave Macartney asked if this damage, could be attributed to poor construction. Manny Perotin suggested that it is difficult to determine when evaluating the damage in post-event conditions but thinks it is possible. He talked also about the cost to repair structures damaged from flooding. Leadon Langly asked about whether post-event evaluation total losses include wage costs associated with employees being out of work while their workplace repaired. John Bologna expressed concern that the costs associated with property owners performing elective work on their property contribute to the need to perform floodproof construction unrelated to elective improvements. Dave Macartney thanked the guests for contributing to today's meeting. Manny Perotin spoke about FEMA requirements include cumulative method which has property owners adding each project costs together, and he urged not adopting substantially improved and damages methods, which lessen the FEMA requirements. Joy Duperault asked if eliminating the 50% threshold currently used would prevent a community from participating in the National Flood Insurance Program (NFIP). Manny Perotin thinks not using the 50% cost of construction against the structure value would likely prevent communities from participation in the NFIP. John Grace said a community could not use different rules unless their rules produce a higher standard. Joy Duperault expressed the results of the BBRS not continuing to use the 50% cost of the improvement compared to the structure value will have individual communities adopting codes that include NFIP requirements. David Macartney expressed concern that Congress has

tied FEMA's hands if it cannot accept different substantially improved methodologies. Chairman Crowley spoke about how some codes allow different methodologies for a project to comply with codes requirements which gives property owners options. Many building improvements using the IEBC can occur without requiring the entire structure to comply with new construction standards. This encourages property owners to maintain their structure. Rebecca Haney showed a FEMA Coastal A Zone map (link: <https://drive.google.com/file/d/1ywgVUri0iVleRoCNtDdutvorag7oux13/view?usp=sharing>) and spoke about it identifies land about 30.6 square miles impacted by FEMA Coastal A Zone and it incorporates; 21.58 square miles of Coastal Dune and open space, 2.37 square miles of open space, 2.1 square miles of open space, and 4.56 square miles of potentially developable land. Rebecca Haney offered to provide a pdf of this map. Lisa Engler said the online mapping system is available to anyone. Rebecca Haney said the effort to show local zoning requirements in the 30.6 square miles is more complicated than could be shown today. Jamie Fay asked why coastal dunes not shown, and Rebecca Haney explained that requirements for these are already in the code. David Macartney would like to bring a Chapter 91 expert to the next meeting. John Bologna asked if ASCE 24 and freeboard premise anticipated a future event, Christopher Jones said it does not. The group summarized the issues to discuss at a future meeting: Chapter 91; parking on the structure lower level (what contributes to ground floor); the 50% substantial improvement/damage threshold (identify another method); identify the possible incentives, so property owners elect to perform flood resilient construction techniques. Chairman Crowley would like to have the next meeting include information about Chapter 91.

4. **Discuss** other matters not reasonably anticipated 48 hours in advance of meeting. N/A.
5. **Adjourn.** On a **MOTION** by Dave Macartney, seconded by Andrew Kollar it was unanimously with the next meeting October 17, 2019.

Exhibits

- A. Meeting agenda.
- B. Meeting minutes.